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# Linguistic Signatures of Regulatory Focus: How Abstraction Fits Promotion More Than Prevention

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In 3 experiments, the authors investigated how strategic inclinations associated with promotion versus prevention orientations—that is, eager approach versus vigilant avoidance, respectively—affect the use of language. It is hypothesized that eager promotion strategies used to attain desired end states entail using more abstract language than used with vigilant prevention strategies. This is shown to hold for experimentally induced relationship goals (Experiment 1) and communication goals (Experiment 2). In the 3rd experiment, the authors examined the impact of abstractly and concretely worded messages upon the behavioral intentions of chronically prevention- and promotion-oriented individuals and found support for the hypothesis that behavioral intentions to engage in specific activities are stronger when there is a fit between message wording and chronic orientation than when there is no fit. The broader implications of these findings are discussed.

*Keywords:* linguistic category model, regulatory focus theory, language use

People enter the public arena by means of talk. The way individuals address others is also the way they regulate themselves in relation to others. With speech acts, people reveal and regulate themselves in a social context (McGuire & McGuire, 1988; Semin, 2004), but such revelation and regulation is often not etched on the surface of what is said. Moreover, individuals are also highly skilled in monitoring their verbal appearance, because talk and its subtle uses is something that has been modulated and refined ever since early childhood. Early on, individuals learn that saying some things makes them good boys or girls and that other forms simply do not come up to scratch. They know tacitly (Polanyi, 1967) that some forms of talk are more appropriate for specific occasions than for others (Douglas & Sutton, 2003; McGuire, McGuire, & Cheever, 1986). Indeed, talk and, more specifically, strategic language use is the main vehicle for self-regulation in everyday life,

and yet surprisingly there is, to our knowledge, no research that has addressed the distinctive linguistic strategies that people with different self-regulatory systems employ.

The three experiments we report in this article address this question. Are there distinct linguistic strategies that differentiate between different self-regulation processes, in particular the different strategic preferences associated with promotion and prevention orientations (Higgins, 1987, 1997, 1998; Higgins, Klein, & Strauman, 1985)? Whereas the first two experiments examined this question, the third one investigated whether messages constructed with distinctive linguistic strategies make people more receptive to engage in specific actions when the linguistic pattern of a message is tailored to fit (Higgins, 2000) people's preferred strategic inclination (i.e., eager approach for chronic promotion; vigilant avoidance for chronic prevention).

How do strategic inclinations toward attaining a desired goal (eager approach or vigilant avoidance) affect language use? To trace this link, we first outline briefly the different strategic inclinations that characterize distinct self-regulation systems. We then turn to the relationship between language use and strategic inclination from which the specific hypotheses for the research reported here are derived.

## Strategic Goal Orientation and Language Use

The idea that people approach pleasure and avoid pain is one that has guided thinking from ancient Greek philosophy to the present day (Higgins, 1997). However, recent research and theo-

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ricing has shown that when facing positive or negative goals, people may proceed differentially by orientating themselves with reference to either the positive or negative features of such goals (Brendl & Higgins, 1996; Brendl, Higgins, & Lemm, 1995; Förster, Higgins, & Idson, 1998; Higgins, Roney, Crowe, & Hymes, 1994; Higgins & Tykocinski, 1992). Thus, the argument has been advanced that there are motivational orientations with strategic consequences that cut orthogonally across the valence of the outcome (positive or negative). Distinct strategic inclinations (eager approach and vigilant avoidance) derive from different self-regulation systems. According to regulatory focus theory (Higgins, 1987, 1997, 1998; Higgins et al., 1985), self-regulation processes vary depending on whether such processes are made in relation to strong *ideals* (hopes and aspirations) or strong *oughts* (beliefs about duties and responsibilities). Whereas the former entails a promotion focus, the latter involves a prevention focus.

These regulatory foci differ in their strategic inclinations for how to move toward a goal. The promotion self-regulation system is characterized by an orientation that focuses on progress and advancement toward goals, namely hopes and aspirations. In order to go ahead and approach a desired end state, to attain advancement and gain, people tend to be in a state of eagerness. In contrast, in a prevention focus, goals are perceived as duties and obligations, and the concern is more with what one should do. The strategic concern with being careful to avoid mistakes means that moving toward a goal occurs in a state of vigilance, with a concern to ensure safety and nonlosses. Whereas a promotion focus is characterized by sensitivity to positive outcomes (whether they are present or absent), a prevention focus is characterized by sensitivity to negative outcomes (presence or absence). Thus, from a promotion regulatory focus the preferred strategy is an inclination to eagerly approach matches to desired end states, whereas vigilantly avoiding mismatches to desired end states is the natural self-regulation strategy from a prevention focus perspective (e.g., Higgins et al., 1994). There is considerable evidence showing that the distinctive features of these different regulatory orientations exert differential effects on affective, motivational, and cognitive processes (e.g., Crowe & Higgins, 1997; Higgins et al., 1985; Higgins & Tykocinski, 1992; Roney, Higgins, & Shah, 1995; see Higgins, 1997, 1998 for reviews).

The question here is whether people with different regulatory orientations access different language registers when talking about attaining specific end states. What type of language would people in a promotion focus with an eager inclination use to describe how they would strategically proceed toward a specific end state? We know that for promotion-focused people, movement toward an end state in an eager manner is inclusive, broad, and general. In a promotion focus, individuals want to ensure against missing any "hits" (see Crowe & Higgins, 1997; Friedman & Förster, 2001; Liberman, Molden, Idson, & Higgins, 2001). The characteristic security concerns of prevention orientation focus are replaced by fulfillment of growth in the case of promotion orientation. This orientation benefits from going beyond the concrete (e.g., Is the dinner table laid properly, and are dinner details in order?) to the abstract or global (e.g., having a successful and enjoyable dinner). Therefore, the most suitable language to represent movement toward such goals is an abstract one. It is the most effective and simple means to represent broad aspirations, include all hits, and describe overarching principles and goals.

In contrast, a prevention orientation with a vigilant inclination is characterized by wanting to ensure against committing mistakes and is very likely to focus on detail. Individuals with a prevention orientation concentrate on their concrete surroundings to maintain security and do so by screening the environment for possible impediments to fulfilling their goals in order to eliminate them. Thus, focusing on concrete detail is instrumental to their goal attainment. Such an orientation, characterized by a strategy to avoid any errors and a tendency to focus on minute detail, is most likely to use concrete language when describing how to move toward end states (e.g., How is the dinner table set, the food prepared, etc. for a successful evening?). A concrete use of language ensures representing detail to exclude the possibility of making a mistake and to ensure that the specific steps needed to attain a goal are procured. Thus, the language used by individuals in a promotion or prevention focus may be expected to differ in terms of the types of predicates that are used in descriptions of how to strategically proceed toward desired end states. People in a promotion focus are predicted to use more abstract terms and those in a prevention focus are expected to use more concrete predicates in their descriptions of the strategic means they would deploy to obtain specific end states. A recent article by Förster and Higgins (in press) provides convergent support for these conclusions. They have examined global and local processing preferences of promotion and prevention focus orientation using the Navon (1977) task. Participants were presented with stimuli consisting of larger figures (e.g., large letters) that were constructed with arrangements of smaller figures (e.g., smaller letters), and they had to decide whether a large letter (global) or a small letter (local) appeared on the screen. Förster and Higgins (in press, Experiment 1) found that the strength of promotion focus was positively correlated with global processing speed, whereas the reverse was obtained for prevention orientation strength. These findings provide a link to the issue we addressed here. Thus, whereas chronically promotion-inclined individuals were more likely to display a global perceptual processing advantage (more general or abstract), chronically prevention-inclined individuals were more likely to display a local (more concrete or detail-focused) perceptual processing advantage.

To examine the relative prominence of abstract versus concrete language in descriptions of strategic goal orientations from a promotion versus prevention regulatory focus, we used the linguistic category model (LCM; Semin, 2000; Semin & Fiedler, 1988, 1991). The LCM is a model of interpersonal language that furnishes the means to investigate, among other things, the type of linguistic devices that are used to represent social events. In this model a distinction is made between four different categories of interpersonal terms. *Descriptive-action verbs* are the most concrete terms and are used to convey a description of a single, observable event and preserve perceptual features of the event (e.g., "A punches B"). Similarly, the second category (*interpretive-action verbs*) describes specific observable events. However, these verbs are more abstract in that they refer to a general class of behaviors and do not preserve the perceptual features of an action (e.g., "A hurts B"). The next category (*state verbs*) typically describes an unobservable emotional state and not a specific event (e.g., "A hates B"). Finally, *adjectives* (e.g., "A is aggressive") constitute the last and most abstract category. These generalize across specific events and objects and describe only the subject. They show a low contextual dependence and a high conceptual interdepend-

dence in their use. In other words, the use of adjectives is governed by abstract, semantic relations rather than by the contingencies of contextual factors. The opposite is true for action verbs (e.g., Semin & Fiedler, 1988; Semin & Greenslade, 1985). The most concrete terms retain a reference to the contextual and situated features of an event. We applied this model to examine how descriptions of attaining specific end states varied as a function of whether participants were in a promotion versus a prevention regulatory focus.

In the first two experiments reported below, we pursued the general hypothesis that people in different regulatory foci deploy different linguistic strategies when describing how to attain specific end states. In both experiments, we experimentally induced two strategic orientations to obtain the same goals, namely either approaching the goal to attain it, or avoiding failure in reaching the goal. In the third experiment, we investigated whether messages constructed with distinctive linguistic strategies have a greater influence on people's behavioral intentions if the linguistic pattern of a message is tailored to fit (Higgins, 2000) the preferred strategic inclination associated with a particular regulatory orientation (i.e., abstract for eager promotion; concrete for vigilant prevention). This experiment provided a reverse examination of the distinctive linguistic signatures of regulatory focus orientations by examining the effectiveness of message abstraction versus concreteness on behavioral intentions of chronically prevention- versus promotion-oriented individuals.

### Experiment 1: Are There Distinctive Linguistic Signatures for Promotion and Prevention Regulatory Foci?

The first experiment was designed to obtain descriptions of how to strategically obtain a particular goal (i.e., maintaining friendship; Higgins et al., 1994). For this experiment we adopted a method from a previous study reported by Higgins et al. (1994) and instructionally induced approach and avoidance strategic inclinations toward attaining the same goal—friendship—namely, approaching the goal in order to attain it or avoiding failure in reaching the goal.

In the avoidance goal instruction condition (prevention), we expected a focus on concrete activities that one must not neglect (avoiding negatives) and needs to perform to maintain a friendship. Thus, the optimal strategy to demonstrate that one is not a poor friend is to engage in a number of friendship reaffirming activities, such as to ring the friend, visit him or her, or not forget his or her birthday. In terms of language use, this would mean a prominent use of concrete language (e.g., verbs of action) that would be indicative of a focus on specific activities that need to be done in order to maintain friendship. However, to achieve the same goal formulated with an approach frame (to be a good friend), one is more likely to adopt inclusive strategies that consist of broad goals and are driven by the ideal of friendship, such as being open, available, reliable, honest, warm, and understanding. In the approach condition, the experimentally induced strategic concern is not so much avoiding possible misses (neglecting critical things one does for a friendship) that may hinder goal attainment but rather identifying a broad sweep of goals (high number of hits) that are driven by the ideal of friendship. We therefore expected relatively prominent use of global or abstract language in the approach instruction (promotion) condition.

### Method

**Participants.** Twenty-five female and 5 male students of the University of the Basque Country participated in this study and were randomly assigned to the conditions.<sup>1</sup> Their average age was 18 years.

**Procedure.** Two questionnaires, differing in terms of the strategic orientation manipulation (promotion vs. prevention), were distributed. In the promotion condition participants were asked, "Imagine that you are the kind of person who likes to be a good friend in his close relationships. What would your strategy be to meet this goal?" The instruction in the prevention condition was "Imagine that you are the kind of person who believes you should try not to be a poor friend in your close relationships. What would your strategy be to meet this goal?" The participants' task consisted of providing a written answer to this question.

Once they had answered, participants were asked to also give their evaluation of the goal on a 7-point scale (1 = *negative*, 7 = *positive*). This question was introduced to check whether the regulatory focus manipulation had influenced the valence of the goal. We wanted to manipulate the regulatory focus of the goal without influencing the valence of the goal.

**Coding procedure for the open-ended answers.** Two independent judges who were blind to the experimental conditions coded the predicates in the descriptions provided by the participants according to the LCM (Semin & Fiedler, 1988). The degree of agreement between the coders was found to be high (Cohen's  $\kappa = .87$ ). A linguistic abstraction index was calculated by summing up the frequency of descriptive-action verbs, interpretive-action verbs (multiplied by 2), state verbs (multiplied by 3), and adjectives (multiplied by 4). Finally, the result was divided by the total sum of linguistic categories used in each description to derive a standardized measure, which ranges from 1 to 4 (Semin & Fiedler, 1989).

### Results

**Check on goal valence.** A one-way analysis of variance (ANOVA) showed that, as desired, the evaluation of the valence of the goal did not differ as a result of the promotion and prevention manipulations,  $F(1, 26) < 1$ .

**Linguistic abstraction.** A one-way ANOVA with degree of linguistic abstraction as the dependent variable showed that the predicted difference between the promotion and prevention orientation was significant,  $F(1, 26) = 10.72, p < .01$ . Descriptions of friendship strategies in the promotion condition were more abstract ( $M = 2.70, SD = 0.49$ ) than those in the prevention condition ( $M = 2.22, SD = 0.22$ ). Thus, participants in a promotion orientation condition were more likely to generate statements involving adjectives such as "To be a good friend I would be supportive" and "I would be caring and helpful." Sentences with state verbs were also frequent, such as "I would respect her" and "I would remember her birthdays." In contrast, participants in the prevention orientation condition were more likely to generate sentences such as "Not to be a poor friend, I would ring him often," "would visit her," "ask her around," and "I would invite him for dinner."

### Discussion

The differential linguistic strategies befitting the articulation of promotion and prevention strategies found an initial confirmation

<sup>1</sup> Two participants were excluded from the analyses. One had been assigned to the prevention condition and had formulated the answer as "To be a good friend . . ." The second was an outlier on the linguistic abstraction scores.



in this study. The findings demonstrate that when participants are asked to think and formulate strategies aimed at being a good friend, then this finds its expression in the use of more abstract formulations in contrast to strategies aimed at avoiding being a poor friend. Whereas the induced promotion focus gives rise to abstract and more global strategic formulations (e.g., being good, friendly; being available), the prevention focus condition yields more specific, concrete strategies (e.g., keeping in touch, phoning, visiting frequently).

## Experiment 2

In the second experiment, which consisted of participants being asked to convey an impression about a target person, we extended the first experiment's basic design by introducing two new elements. One was the valence of the behavior performed by a target depicted in a cartoon, which was either positive (e.g., defending somebody) or negative (e.g., insulting somebody). The second was the instructional induction of promotion and prevention foci that were adapted from the first experiment. Participants were given approach or avoidance strategic instructions toward attaining the same communication goal within the valence conditions. In the positive target behavior condition they were instructed to describe the target behavior in a way that a third party would think about the target either "in a positive way" or "not in a negative way." Thus, whereas the former instruction entailed one of approaching the goal with a strategy of affirming a positive impression, the second condition involved avoiding failing to convey a positive impression. For negative target behaviors, the instructions were framed in the opposite way. Here, participants were asked to describe the target's behavior such that others would think negatively about the target or, alternatively, not positively. Again, the central prediction we advanced was that the language by which impressions are conveyed is more abstract in the approach inclination condition relative to the avoidance inclination condition, irrespective of target behavior valence. Thus, approach and avoidance strategic inclinations were manipulated orthogonally to the valence of the behavior in question. The resulting design was a 2 (valence: positive vs. negative)  $\times$  2 (strategic inclination: approach vs. avoidance) between-participants factorial.

## Method

**Participants.** Forty-eight female and 9 male students of the University of the Basque Country participated in this study and were randomly assigned to conditions. Their average age was 21 years.

**Procedure.** Four different booklets were constructed. The first page depicted the cartoon of a target person who was engaged in either a positive behavior (e.g., defending somebody) or a negative behavior (e.g., insulting somebody). The two cartoons had been used in our previous studies and were chosen because they were moderately valenced, as we wanted to avoid any possible ceiling effects. They had been rated  $M = 5.60$  ( $SD = 1.26$ ) and  $M = 2.45$  ( $SD = 1.18$ ) for positive and negative behaviors, respectively, on a 7-point scale. The target person and the person who was the subject of the action were drawn in a gender-neutral manner to minimize the influence of extraneous variables. The positive event depicted the target person intervening in a situation in which a frightened-looking, smaller person was about to be hit by a third person. The negative behavior consisted of a cartoon depicting the target person with a wide-open mouth who appeared to shout with an aggressive expression at somebody who was looking sad. In both cartoons, the target person was marked with an X.

The instructions that followed each cartoon introduced the approach versus avoidance strategic inclinations. In the case of the positive target behavior conditions, a strategic approach inclination was induced by the following instruction: "Imagine that you know person X who appears in the cartoon. How would you describe the event if you wanted somebody to think about X in a positive way?" In the strategic avoidance inclination condition, they were asked the following: "Imagine that you know person X who appears in the cartoon. How would you describe the event if you did not want somebody to think about X in a negative way?"

In the case of the negative target behavior condition, the question for the strategic approach inclination condition was framed as follows: "Imagine that you know person X who appears in the cartoon. How would you describe the event if you wanted somebody to think about X in a negative way?" In the strategic avoidance inclination condition, the framing was as follows: "Imagine that you know person X who appears in the cartoon. How would you describe the event if you did not want somebody to think about X in a positive way?"

**Dependent variables.** First, participants provided their descriptions of the impression they were asked to convey. Then they were asked to answer a number of closed-ended questions. As a manipulation check, they were first asked how they would evaluate the communication goal of giving an impression of the target's positive or negative behavior ("How would you evaluate this goal?") on 7-point a scale, the ends of which were anchored with *negative* (1) and *positive* (7). Next, they evaluated the behavior depicted in the cartoon ("How would you evaluate this event?") on the same type of scale. Finally, we formulated two dependent variables to check for qualitative differences between the strategic inclination conditions (strategic approach vs. strategic avoidance). They were asked to indicate the perceived difficulty to achieve the goal ("How difficult do you consider achieving the goal in your description?") and of the time required to achieve the goal ("How long do you think it would take you to achieve the goal?"). Both had 7-point scales, the ends of which were anchored, respectively, as *easy* (1) and *difficult* (7) and *a short while* (1) and *a long time* (7).

**Coding procedure.** As in the first study, two independent coders coded all the verbs and adjectives used to describe the events. They were blind to the conditions of the experiment (Cohen's  $\kappa = .88$ ). Linguistic abstraction was calculated in the same way as in Experiment 1 (see also Semin & Fiedler, 1989, for details).

## Results

**Check on valence of goal and behaviors.** The evaluation of the goal and target behavior were found to be highly correlated,  $r(56) = .68, p < .01$ . We therefore collapsed these items to form a single index. An ANOVA with the between-participants variables of strategic inclination and target behavior valence showed, as desired, no effect of strategic inclination,  $F(1, 52) = 0.01, ns$ . As expected, there was a behavior valence main effect,  $F(1, 52) = 102.89, p < .01$ . Negative behaviors were judged negatively ( $M = 2.45, SD = 1.23$ ), and positive target behaviors, positively ( $M = 5.35, SD = 1.33$ ). The interaction was not significant  $F(1, 52) < 1$ .

**Linguistic abstraction.** The central hypotheses concerning the effect of strategic inclination on linguistic abstraction was examined with the same strategic inclination versus target behavior valence ANOVA design. This analysis revealed two main effects and no interaction. The main effect for strategic inclination,  $F(1, 52) = 9.38, p < .01$ , confirmed the hypothesis that descriptions from an approach focus were more abstract ( $M_{\text{promotion}} = 2.26, SD = 0.60$ ) than those produced from an avoidance focus ( $M_{\text{prevention}} = 1.87, SD = 0.39$ ). The second significant main effect was for target behavior valence found. Negative behaviors

were described more abstractly ( $M_{\text{negative}} = 2.26$ ,  $SD = 0.48$ ) than the positive ones ( $M_{\text{positive}} = 1.88$ ,  $SD = 0.54$ ),  $F(1, 52) = 9.10$ ,  $p < .01$ . The interaction was not significant,  $F(1, 52) = 0.07$ .

We further checked the strategic inclination effect for linguistic abstraction separately for the negative and positive target behavior conditions. This main effect was significant when the ANOVA was performed within the negative target behavior,  $F(1, 27) = 4.54$ ,  $p < .05$ , and the positive target behavior conditions,  $F(1, 25) = 4.80$ ,  $p < .04$ . In the case of the negative target behavior condition, the approach strategic inclination descriptions were more abstract ( $M_{\text{promotion}} = 2.43$ ,  $SD = 0.53$ ) than those generated in the avoidance strategic inclination condition ( $M_{\text{prevention}} = 2.07$ ,  $SD = 0.35$ ). Similarly, in the positive condition, more abstract terms were used for the descriptions under the approach strategic inclination ( $M_{\text{promotion}} = 2.08$ ,  $SD = 0.63$ ) than for the description under the avoidance strategic inclination ( $M_{\text{prevention}} = 1.66$ ,  $SD = 0.32$ ).

Entering the evaluation index as a covariate in this analysis did not change the main result. The effect of strategic inclination remained significant,  $F(1, 51) = 9.33$ ,  $p < .01$ . However, the target behavior valence effect became nonsignificant,  $F(1, 51) = 1.45$ .

*Perceived goal attainability.* To examine whether there were qualitative differences regarding goal attainability for the two strategic inclination conditions, we first examined the relationship between the two relevant questions ("How difficult do you consider achieving the goal in your description?" and "How long do you think it would take you to achieve the goal?"). Perceived difficulty to achieve the goal and the time required to achieve it were found to be significantly correlated,  $r(56) = .42$ ,  $p < .01$ . The longer the time required to achieve a goal, the more difficult it was perceived to be achieved. We thus created a composite index of these two variables as a measure of goal attainability and entered it in a  $2$  (strategic inclination)  $\times 2$  (target behavior valence) ANOVA. This analysis yielded a main effect for only strategic inclination,  $F(1, 52) = 6.03$ ,  $p < .02$ . Descriptions from an approach strategic inclination were perceived to be less attainable ( $M = 4.78$ ,  $SD = 1.28$ ) than descriptions from an avoidance strategic inclination ( $M = 5.56$ ,  $SD = 2.44$ ). In other words, the impressions provided in the descriptions from an approach perspective were judged to be more difficult to achieve and to require more time to achieve than those generated from an avoidance perspective. The effect for target behavior valence and the interaction were not significant (both  $F$ s  $< 1$ ).

It is possible to argue that the abstraction of the descriptions is related to difficulty in attaining the goal. However, the composite index did not show a significant correlation with linguistic abstraction,  $r(56) = -.09$ . Nevertheless, we also conducted an analysis of covariance to check whether goal attainability could account for the effect of strategic inclination on linguistic abstraction. Thus, strategic inclination and valence constituted the variables, and linguistic abstraction constituted the dependent variable, with goal attainability as the covariate. Although the covariate showed a trend,  $F(1, 54) = 3.10$ ,  $p < .09$ , the effects for both independent variables, strategic inclination  $F(1, 54) = 8.03$ ,  $p < .01$ , and valence,  $F(1, 54) = 9.23$ ,  $p < .01$ , remained unchanged, as did the nonsignificant interaction effect,  $F(1, 54) < 0.01$ ,  $p < .94$ .

## Discussion

The second experiment investigated how communication goals framed from two different strategic inclinations shaped language use in the composition of a message. The results support the hypothesis that when a communication goal is framed in approach terms (promotion), then the description that participants provide is more abstract than when it is framed in avoidance (prevention) terms.

The approach strategic inclination involves behavioral strategies that are global, which is a way of ensuring that all the possible correct hits fall within the goal of describing a person with a specific tendency. An example of participants trying to give a good impression about a target who acts positively was statements such as "A is a helpful person," "A is courageous," or "A wants to be helpful." The choice of an adjective includes a wide range of behaviors in which A could possibly engage by referring to a general property of the personality makeup of A. The use of trait terms achieves the goal of giving a good impression, by referring to an enduring quality of the person and, by implication, some consistency of behavior over time and contexts (Semin & Fiedler, 1988, 1991). The target person is positive. In contrast, the descriptions written from an avoidance strategic inclination (e.g., "X is helping A" or "X is defending A") refer to situated, nongeneralizable behaviors. These types of descriptions ascertain a factual basis for the description and follow the letter of the instruction: "Make sure that you do not convey a negative impression." However, they are less informative about the person's makeup. An episodic event is described that contains no information about the personality makeup of the target. On the other hand, the information is factual, verifiable, and indisputable (Semin & Fiedler, 1988). So a concrete or factual strategy ascertains that no mistakes are made, and there is no room left for vagueness in the mind of the receiver of such a description. The target acted positively.

It is notable that both the approach inclination (promotion) and negative behavior increased abstraction. These findings have at least two interesting implications. First, as we noted in the introduction to both this article and the second experiment, approach and avoidance inclinations are orthogonal to valence. This study shows that it is not the case that promotion is perceived more positively than prevention, and this somehow produces more abstraction because it was negative, not positive, behavior that produced more abstraction, and it did so independent from the type of experimentally induced inclination. The second implication has to do with the relationship between the valence of target behavior and the abstractness of the impression descriptions. Impressions relying on negative target behaviors are more abstractly communicated than positive target behaviors. This result may be interpreted as a negativity effect, which suggests that people tend to generalize more and draw more inferences from negative than from positive behaviors. Indeed, as Rothbart and Park (1986) argued, it is sufficient to observe one dishonest behavior to infer dishonesty, whereas confirming whether a person is honest requires more than a single concrete behavior displaying honesty. The main effect we noted may be due to this type of asymmetry between negative and positive behaviors. The stronger abstractness of the negative target behavior condition is also interpretable from the point of view that negative behaviors violate norms and go against situational constraints and—by Kelley's (1973) augmentation principle—are

more likely to be attributed to the person's more enduring characteristics.

Finally, it should be emphasized that the covariance analyses demonstrate that strategic inclination influences linguistic abstraction independent of the valence of the outcome and differences in the perceived attainment of the communication goal.

### Experiment 3: Marrying the Message to the Person—What Should One Say to Whom and How?

The first two experiments examined spontaneous language production as a function of experimentally induced motivational orientation. Both show a distinctive and stable pattern of predicate use, depending on whether the experimentally induced orientation is a promotion or a prevention focus. One could possibly argue that such an experimental manipulation activates processes other than regulatory focus and that these may be responsible for the noted systematic differences in language use. This is unlikely given that in both experiments the regulatory focus manipulations did not influence goal valence, and Experiment 2 found that the regulatory focus effect on abstraction was independent of goal valence. Nonetheless, it would be useful to find another way to highlight the relationship between regulatory focus and preferential linguistic strategies.

One way to accomplish this is to reverse the experimental paradigm and thus construct a message that matches the postulated linguistic preferences of promotion- and prevention-oriented persons and examine the persuasive impact of such a message. This is related to the rationale of research on the increased impact of persuasive messages when the message is matched to one's guiding attitude functions. Such functions can be the motivational basis of one's attitudes, psychological needs served by one's attitudes (e.g., Cacioppo, Petty, & Sidera, 1982; Lavine & Snyder, 1996; Snyder & DeBono, 1985), promotion and prevention motivation as self-guides (e.g., Evans & Petty, 2003), or emotional overtones that match the emotional state of the receiver (DeSteno, Petty, Rucker, Wegener, & Braverman, 2004). One can also derive this reasoning from the "value from fit" (Higgins, 2000) framework. If it is the case that individuals who are in a promotion focus prefer to use abstract terms in formulating how they intend to realize specific goals, and those in a prevention focus prefer to use concrete terms, then they should be more receptive to messages formulated with the respective predicate profiles. In other words, one can examine the fit between message properties that are varied systematically as independent variables (abstract vs. concrete) along with motivational orientation, also as an independent variable. Therefore, one way of examining whether the abstract-concrete language use proclivity is a preference for people with a chronic promotion or prevention focus is by setting up an experimental constellation that examines the fit between message abstractness and chronic regulatory focus. This means effectively reversing the reasoning underlying the first two experiments to examine in another way the validity of the proposed relationship between linguistic strategies and regulatory foci. Experiment 3 extends the first two experiments in both of these ways.

Thus, in the third experiment reported below, we proceeded with the assumption that a message framed in abstract terms should show a fit with people who are chronically promotion oriented, and messages that are concretely formulated should show

a fit with people who are prevention oriented. This follows from the results obtained in the first two experiments we have reported. A fit between a message formulation (or framing) and chronic regulatory orientation means that such messages are more persuasive to their recipients because they "feel right" by sustaining the recipients' orientation (see Cesario, Grant, & Higgins, 2004; Lee & Aaker, 2004). To examine this, we created an experimental situation for which we constructed simple persuasive messages about the relationship between sports and health. In addition, we framed the message by emphasizing the gains that engaging in health-related behaviors would yield versus the losses that can be incurred if one were not to engage in health behaviors. Thus, we varied the win versus loss frame of the message orthogonal to message concreteness versus abstractness. In this way, as in Experiment 2, we could examine the predicted relation between regulatory focus and communication abstraction while controlling for outcome valence. As in Experiment 2, it was expected that the predicted relation—in this case, the fit effect on persuasion—would be independent of outcome valence (i.e., independent of the win vs. loss message framing).

We were interested in the impact of fit on two sets of variables. One was a cognitive set, namely, judgments about the perceived quality of the message. The second was a motivational set, namely, the behavioral intention to engage in sport-related activities. The hypothesis was that, independent of the valence of the message framing, fit for chronically promotion-focused individuals is created when a message is framed abstractly, whereas fit for chronically prevention-focused individuals is created when a message is framed concretely. In both of these conditions, we expected participants to display a stronger intention to engage in health-related behaviors. In contrast, we did not make any specific predictions about the cognitive variable, which related to judgments about the quality of the message (how well it is composed, etc.).

### Method

**Participants.** One hundred eighteen unpaid, volunteer pupils from a Dutch secondary and high school were selected from a sample of 221 on the basis of their scores on the Regulatory Focus Questionnaire (RFQ; Higgins et al., 2001).<sup>2</sup> The sample of 118 consisted of participants who were predominant on promotion (had a high score on the Promotion subscale,  $M = 5.35$ ,  $SD = 0.53$ , and a low score on the Prevention subscale,  $M = 3.57$ ,  $SD = 0.70$ ) and predominant on prevention (had a high score on the Prevention subscale,  $M = 5.49$ ,  $SD = 0.60$ , and a low score on the Promotion subscale,  $M = 3.95$ ,  $SD = 0.49$ ) and were selected by means of median split scores on both scales. The final sample consisted of 51 boys and 67 girls with a mean age of 14.62 years for the entire sample.

**Procedure.** The teachers conducted the study at the beginning of a class. They started with a brief introduction, then the four versions of the booklet were distributed randomly in each of the classrooms. The teacher

<sup>2</sup> Earlier work with a direct translation of the RFQ (Higgins et al., 2001) proved that the internal consistency of this scale was poor ( $\alpha < .7$ ), and the two subscales were not orthogonal. We developed a new version, adapting some of the wording and adding new items, and administered it to a sample of 108 students at the Free University Amsterdam. The 12-item scale showed a reasonable internal consistency for both promotion ( $\alpha = .77$ ) and prevention ( $\alpha = .75$ ), and both scales were found to be orthogonal in a factor analysis with varimax rotation. Scales and data are in the Appendix.



provided further instructions, asked the class to be quiet, and stressed that the pupils should work individually. Anonymity was emphasized. Participants filled out the RFQ first and then were instructed to read the text on sport and answer the questions that followed the text. They were thanked for their cooperation and debriefed a week later.

*Independent variables.* Four different sports campaign messages were composed after extensive piloting. The content of the messages were constructed such that they either had a win or a loss frame. Furthermore, these messages were constructed with either abstract or concrete predicates. This resulted in four different messages. For instance, the message in the abstract-win condition was as follows (translated from the Dutch):

Doing sports is good for you. It enhances health and is also fun and relaxing. Sports make your muscles and bones stronger, and give you a better functioning heart and lungs. Sports also increase your endurance. They make it easier also to stick to a healthy weight. If you do sports then you have more energy and are less susceptible to illnesses. Sports contribute to an advantageous physical condition and keep your spirit healthy. You are also more relaxed. Sports often take place in the presence of others, so it can advance your social life as well. Exercising is easier than you think. Aside from doing sports, you can engage in many other simple activities in the course of your daily life.

The concrete-win version read,

Doing sports is good for you. It enhances health and is also fun and relaxing. Exercising strengthens your muscles and bones and improves how your heart and lungs function. You can endure more if you exercise. When sitting, you burn approximately 90 calories per hour; when you exercise you burn approximately 440 calories per hour. If you exercise, then you have more energy and are more likely to resist illnesses. Sports contribute to an advantageous physical condition and keep your spirit healthy. You relax more. When you are exercising you also meet other people, make new acquaintances and friends. Exercising is easier than you think. Aside from doing sports, you can also simply walk to school, walk up the stairs instead of taking the elevator, or walk the dog.

The abstract loss and concrete loss versions were identical, except that they emphasized the losses one would incur if one did not engage in sports or exercising, and kept as closely as possible to the win wordings above. So, the respective texts read, "Not doing sports is bad for you," "If you do not do sports, then you do not enhance your health and miss out on the fun and relaxation," and so forth.

*Dependent variables.* We measured the perceived quality of the text by means of seven items. These were as follows.

1. "Do you have the feeling that the text is well composed?"
2. "Does the message come across clearly?"
3. "Does the text emphasize the important consequences of doing sports?"
4. "To what extent do you think that the text is appealing to somebody?"
5. "To what extent is the text convincing?"
6. "Does the text express your thought on doing sports?"
7. "How good is this text?"

All questions could be answered on a 7-point scale, the ends of which we anchored by *not at all* (1) and *very much* (7). These seven items formed a single scale (Cronbach's  $\alpha = .83$ ) and gave an indication of perceived text quality.

The motivation to engage in sports was measured by means of five items. These were as follows.

1. "How important are sports to you?"
2. "How important will doing sports be for you in the future?"
3. "How important was doing sports for you in the past?"
4. "To what extent are you motivated to engage in sports currently?"
5. "How much do you expect to engage in sports in the future?"

The scale ends were anchored identically to the text quality measure. These five items also formed a scale (Cronbach's  $\alpha = .89$ ) and gave us a measure of behavioral intention.

## Results

*Judgments of text quality.* To examine the judged text quality, we entered the text quality scale into an ANOVA with framing (win vs. loss), language (abstract vs. concrete), and regulatory focus (promotion vs. prevention), all as between-participants variables. This analysis yielded a main effect for win-loss framing,  $F(1, 110) = 24.74, p < .01$ . This indicated that texts framed from a win perspective were judged to be better ( $M = 4.82, SD = 0.87$ ) than texts framed within a loss perspective ( $M = 3.92, SD = 0.01$ ). This main effect was further qualified by the Abstraction  $\times$  Win-Loss Frame interaction,  $F(1, 110) = 4.01, p < .05$ . This was largely due to the fact that, whereas the abstract win condition was rated as the best text ( $M = 4.94, SD = 0.89$ ), the abstract loss text was rated poorest ( $M = 3.76, SD = 0.03$ ). The difference for the concrete text condition was not so polarized: Whereas concrete win was judged as being good ( $M = 4.96, SD = 0.85$ ), concrete loss was judged as still better ( $M = 4.08, SD = 0.88$ ) than the abstract loss text ( $M = 3.76, SD = 0.93$ ). No further effects were observed.

*Behavioral intention.* The ANOVA with outcome valence framing (win vs. loss), language (abstract vs. concrete), and predominant regulatory focus (promotion vs. prevention), all as between-participants variables, yielded a main effect for predominant regulatory focus. Promotion-inclined people were more likely ( $M = 5.85, SD = 1.01$ ) to declare an intention to engage in sports compared with prevention-inclined persons ( $M = 5.33, SD = 1.13$ ),  $F(1, 110) = 7.57, p < .01$ . This main effect was qualified by the predicted interaction between language and regulatory focus for behavioral intentions to engage in sports,  $F(1, 110) = 8.48, p < .01$ . No other effects reached significance (all  $F$ s  $< 1$ ). In line with the fit hypothesis, participants with a predominant promotion focus indicated stronger behavioral intentions to engage in sports if the message was abstract ( $M = 6.08, SD = 0.97$ ) rather than concrete ( $M = 5.60, SD = 1.00, p < .05$ ). The reverse pattern was observed for prevention-focused participants. They indicated that they are less likely to engage in sports-related activities if the message is abstract ( $M = 4.93, SD = 1.17$ ) than when it is concrete ( $M = 5.69, SD = 0.99, p < .05$ ).

A breakdown of the composite behavioral intention measure into the single items and separate ANOVAs for each item yielded the predicted interaction between language and regulatory focus for each of the variables, which were grouped into general and past



significance of sports, “How important are sports to you?”  $F(1, 110) = 4.24, p < .05$ , and “How important was doing sports for you in the past?”  $F(1, 110) = 7.62, p < .01$ , versus future intentions to engage in sports, “How important will doing sports be for you in the future?”  $F(1, 110) = 6.77, p < .02$ ; “To what extent are you motivated to engage in sports currently?”  $F(1, 110) = 5.13, p < .03$ ; and “How much do you expect to engage in sports in the future?”  $F(1, 110) = 7.18, p < .01$ . The respective means and standard deviations can be seen in Table 1. No other interaction was significant (all  $F$ s  $< 1$ ). The pattern in each case was identical to the one observed for the composite measure. Notably, the future referent items are clearer indicators of behavioral intentions, as is the motivational item. The pattern of these three sets of means duplicate the one noted for the composite measure. Abstract rather than concrete messages are more influential for chronically promotion-oriented participants, whereas concrete rather than abstract messages are more influential for chronically prevention-oriented participants.

### Discussion

The two sets of results from this experiment allow us to draw a differential picture of the relationship between the linguistic signatures of a message and its fit with chronic regulatory orientation. When examining the quality of the message, we found an interaction between framing and abstraction and a main effect due to win-loss framing. Although the interaction is theoretically not informative, the main effect suggested that a win-worded message is perceived to be better than a loss-framed message. This is a finding that is consistent with research on health-related message framing (see Rothman & Salovey, 1997, for a review). There is a

substantial literature on message framing, mainly derived from prospect theory (Kahneman & Tversky, 1979), and essentially as Rothman and Salovey (1997) have suggested, there is a systematic element to this research. The effectiveness of framing a message in gain or loss appeals is a function of whether the behavior in question serves an illness detection or health affirmation function. Win frames are generally more effective in health affirmation, and our finding is consistent with this.

The general argument we raised about a fit between message frame and chronic regulatory focus finds confirmation when it comes to behavior intentions; thus the real impact of the message is on the behavioral intentions. Here, we found that when the message is abstract, then promotion-oriented individuals show a stronger intention to engage in sports than when the message is worded with concrete predicates. For prevention-oriented individuals, we found that an abstract message is less effective in influencing their behavioral intentions than a concretely worded message. The pattern of this interaction dovetails with outcomes of the previous two experiments. The data suggest that the effective linguistic registers for promotion- and prevention-oriented individuals differ systematically. Whereas individuals with a promotion orientation are more likely to use abstract terms in describing their goals or conveying impressions, prevention-oriented individuals are more likely to prefer to use a concrete linguistic strategy for the same ends. Although these relative differences within motivational orientation show the predicted differential effect of abstract and concrete messages for promotion- and prevention-oriented individuals, the impact of the concretely formulated message on behavioral intentions did not differ between promotion- and prevention-oriented individuals. The final experiment shows that promotion-oriented individuals are more receptive to messages formulated abstractly and that prevention-oriented individuals are more receptive to concretely worded messages. Indeed, these findings also provide an alternative path to investigating value from fit as a persuasion variable (e.g., Higgins, 2000). It shows that if you simply match the linguistic signature of a message to the preferential linguistic signature of an individual, then the message will have more impact, and in this case, the impact is in terms of the behavioral intention to engage in sports.

### Conclusions

The three studies provide convergent information about the distinctive linguistic signatures of individuals differing in their strategic inclination, either induced situationally or chronically. We found that the linguistic signature of promotion is characteristically abstract and is the language by which eager strategic approach is best captured. Characteristically, prevention-orientation entails a predominantly concrete linguistic signature, and this is typically a language that is best used to express vigilant strategic avoidance. Experiment 2 shows that, notably, these respective linguistic signatures are manifested irrespective of valence. Finally, Experiment 3 departs from the language production paradigm used in the first two studies and investigates the impact of messages as a function of chronic individual differences in regulatory focus. The results of this final study converge with those of the first two and show that the motivational orientation of individuals are best influenced if there is a fit between the linguistic signature of a message and type of regulatory orientation (promotion or abstract; prevention or concrete). We should add a note of caution. This

Table 1  
*Behavior Intention Items Grouped Into General and Past Significance of Sports Versus Future Intentions to Engage in Sports*

Item and message language	Chronic promotion		Chronic prevention	
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>
General and past				
Importance of sports				
Abstract	6.16 <sub>a</sub>	1.17	5.18 <sub>b</sub>	1.53
Concrete	5.88 <sub>a</sub>	1.12	5.83 <sub>a,b</sub>	1.16
Importance of sports in the past				
Abstract	5.84 <sub>a</sub>	1.19	4.45 <sub>b</sub>	1.53
Concrete	5.21 <sub>c</sub>	1.49	5.37 <sub>a,c</sub>	1.09
Future				
Importance of sports in the future				
Abstract	6.21 <sub>a</sub>	1.25	5.04 <sub>b</sub>	1.36
Concrete	5.67 <sub>a,b,c</sub>	1.14	5.79 <sub>a,c</sub>	0.98
Motivated to engage in sports				
Abstract	6.07 <sub>a</sub>	1.21	4.86 <sub>b</sub>	1.42
Concrete	5.61 <sub>c</sub>	1.30	5.62 <sub>c</sub>	1.17
Engage in sports in the future				
Abstract	6.11 <sub>a</sub>	0.95	5.09 <sub>b</sub>	1.26
Concrete	5.67 <sub>a,b,c</sub>	1.19	5.83 <sub>c</sub>	1.00

*Note.* Means not sharing the same subscript differ significantly ( $p < .05$ ) from each other.

research is not meant to show that a chronic promotion or prevention orientation is a hard-wired linguistic signature. As the first two experiments show, experimentally induced demands can influence the type of linguistic strategy people adopt. Thus, it is possible that there are some types of topics that would naturally and collectively induce an eager promotion orientation and others that would induce a vigilant prevention orientation. These types of topic goals might supersede individual differences in chronic regulatory focus.

To our knowledge, systematic differences in the preferences of individuals' language use have received little attention. An exception is research reported by Kruglanski and colleagues. They have investigated individuals high and low in "need for closure" in connection with their preferences for concrete and abstract information in their expression of linguistic biases (Webster, Kruglanski, & Pattison, 1997) and in the types of verbs they choose in the formulation of questions (e.g., Rubini & Kruglanski, 1997). This seems to be a relatively promising area, particularly because of its ramifications for a wider range of applied issues such as marketing, persuasive campaigns, inter alia.

Finally, the research we reported here, and in particular Experiment 3, suggests that goal topics should be worded in a way that appeals to the respective linguistic signatures of the type of strategic inclination best suited for their respective achievement. There is, indeed, some evidence in different persuasion campaigns that concrete or abstract wording is used (intuitively) as a function of the right strategic inclination to achieve the goal. For instance, there are advertisements that use cue sentences regarding strategic approach to promotion goals such as beauty ("L'Oréal, because you're worth it"), happiness ("Coca-Cola, the taste of life"), and so on. Romantic political movements are also based on eagerly approaching promotion goals, such as those representing the French Revolution, "fraternity, equality, freedom," or goals of nationalist movements, such as "freedom," "independence," autonomy." All of these examples stress a strategic approach orientation to positive outcomes represented as hopes and aspirations (ideals), and they tend to be abstractly represented in language. Contrasting examples may be found for the prevention self-regulation system, in which goals are typically represented as duties. An example of such motivations may be prevention campaigns such as "Stay alive; don't drink and drive." As quoted by Higgins (1998), this kind of strategic inclination may also be seen in the Biblical commandments "Do not kill," "Do not steal," et cetera, or one can also find them in everyday restrictions such as "Do not step on the grass." These goals are represented as duties or responsibilities (oughts), and they are linguistically coded in a concrete way. Thus, marrying the message to the strategy that best motivates goal achievement for either collective goals or for personal goals involves discovering the fit between language and regulatory orientation.

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## Appendix

### The Modified Regulatory Focus Questionnaire

Item
Promotion
1. How often have you accomplished things that got you “psyched” to work even harder? <sup>a</sup>
2. Do you often do well at things that you try? <sup>a</sup>
3. I feel like I have made progress toward being successful in my life. <sup>a</sup>
4. Are you a fanatic when you are trying to realize your goals? <sup>b</sup>
5. Are you someone who looks forward to situations in which you expect to have success? <sup>b</sup>
6. I try to reach that in my life, in which I believe <sup>b</sup>
Prevention
7. Growing up, would you ever “cross the line” by doing things that your parents would not tolerate? <sup>a</sup>
8. Did you get on your parents’ nerves often when you were growing up? <sup>a</sup>
9. Growing up, did you ever act in ways that your parents thought were objectionable? <sup>a</sup>
10. Not being careful enough has gotten me into trouble at times. <sup>a</sup>
11. Do you find that there things that you have not thought about when you choose something? <sup>b</sup>
12. Do you break rules to reach your goal? <sup>b</sup>

*Note.* A Dutch version of the Regulatory Focus Questionnaire (RFQ) was administered to 114 undergraduates at the Free University Amsterdam on two separate occasions and revealed two expected factors after a principle components factor analysis (varimax rotation), accounting for 39% of the total variance. The reliability of the scales was low on both time points (Promotion<sub>α</sub> = .55 and .59; Prevention<sub>α</sub> = .68 and .78). More important, the two scales were significantly correlated ( $r = .23, p < .02$ ;  $r = .27, p < .01$ ). We piloted a series of new items to replace the old ones, ending with the 12-item RFQ scale, which we administered to a new sample of 108 undergraduates at the Free University Amsterdam. The analyses of these data yielded a two-factorial solution (PC varimax rotation), accounting for 44% of the total variance and consisting of a Promotion Orientation Scale with an alpha of .76 and a Prevention Orientation Scale with an alpha of .75. The two scales were not correlated ( $n = .06, ns$ ). <sup>a</sup>Items are from Higgins et al.’s (2001, p. 23) study. <sup>b</sup>Items are original to this questionnaire.